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THE FEDERAL CATALOG SYSTEM

By

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//

Bachelor of Arts

University of Michigan, 1950

A Thesis Submitted to the School of Government,  
Business and International Affairs of the George  
Washington University in Partial Fulfillment  
of the Requirements for the Degree of  
Master of Business Administration

March 22, 1965

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Thesis  
R576

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1965.02 78A081, 88A147, 88A150  
Rippon, D. 1965.02.03. 88A147

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## PREFACE

One of the principal reasons for creating the Department of Defense, in 1947, was to reduce defense costs through the elimination of duplication in the supply systems of the military services. Since that time a number of steps have been taken to consolidate and integrate supply functions. One of the first and fundamental steps in that direction was the development of the Federal Catalog System. Since its inception the Federal Catalog has served as the connecting link between the various integrated management programs within the Department of Defense. In this capacity it has become one of the most important information systems in the Department.

The importance of the system has not been generally recognized, however, and there is considerable confusion as to its objectives, accomplishments, and deficiencies. This situation has impared the ability of Defense Department Officials to evaluate its effectiveness, and potential for the future. The review and analysis of the Federal Catalog System contained herein was undertaken in order to dispel some of this confusion.

A complete treatment of the subject would require several volumes. The scope of this review and analysis has, therefore, been strictly delimited to include only areas which provide information as to the need for the system, its purpose, and the effectiveness of its operations.



To this end, Chapter I reviews the history of cataloging in the Federal Government and its importance in logistics operations. Chapter II explains the concepts, principles and procedures under which the Federal Catalog System operates, while Chapter III examines the effectiveness of these procedures in today's military environment. Chapter IV contains observations and conclusions as to the System's value and its place in future operations.



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## CHAPTER I

### INTRODUCTION

Webster defined cataloging simply as a systematic listing of things--such as names, book titles, articles of stock, etc.. This definition is so general and all encompassing that it has come to mean many things to many people. To the man on the street the word catalog brings to mind the Sears Roebuck or Montgomery Ward mail order merchandise. To the librarian it means a card index of books. To the college or university professor it is an official publication of courses of instruction. To the switchboard operator it is the local telephone directory. To the garage man it is the automobile manufacturer's spare parts list.

The examples of this type which come to mind are almost limitless, and this in itself clearly demonstrates the fact that there can be as many different kinds of catalogs as there are different reasons for cataloging things. It also points out that cataloging is a very common and highly useful technique in today's complex society.

It is not surprising, therefore, that the Federal Government, the most complex organization in our modern society, operates a cataloging program which is the largest and most complex ever undertaken in history. This program, known as the Federal Catalog System, covers 3.5 million separate items used by the military and various agencies within the Federal Government and is approximately thirty times larger than the Sears Roebuck catalog which contains only about 100,000 items.<sup>1</sup>

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<sup>1</sup>"Catalog or Chaos?", The Quartermaster Review Supplement, (1959), p.1.



This Federal Catalog System requires for its operation the combined efforts of more than 4,000 persons located at approximately 50 different activities within the military and civilian agencies of the Government. These large numbers of people are necessary because the system is not a static activity but a dynamic one. Approximately 600,000 new items are submitted each year for possible inclusion in the system. In recent years, the system has been increasing at a rate of 200,000 items a year through the addition of about 500,000 new items and the deletion of about 300,000 unnecessary ones. Approximately 7.7 million items have been cataloged since the inception of the program in 1952 and presently more than 20 million different bits of information are maintained in the system's master catalog files.<sup>1</sup>

The cumulative cost of the system, since its inception in 1952, has been approximately 430 million dollars. The average annual cost for the last several years has been averaging about \$27.5 millions.<sup>2</sup>

The system was established by a special act of Congress, and has had the personal interest of every President since Franklin Roosevelt and of every Secretary of Defense since James Forrestal.

From these statistics there can be little doubt that the Federal Catalog System is a program of the first magnitude even in a government where very large programs are the rule rather than the exception. Ever since its inception, however, the System has been highly controversial. There are those that claim that it was obsolete when it was implemented, and represents an unnecessary burden to the taxpayers and therefore cannot be made

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<sup>1</sup>U.S. Comptroller General, Report to the Congress of the United States on the Ineffective Utilization of Supply Items Resulting from Deficiencies in the Federal Catalog System within the Department of Defense, Report No. B-146778, May 31, 1963, pp. 3-4. Cited hereafter as GAO Report on Federal Catalog System, (1963).

<sup>2</sup>Ibid., p. 4.



responsive to the rapidly changing technological needs of military services without complete and costly revision. Others argue that it is the bed rock supporting our entire defense effort and can be continued in its present form with only minor revisions.<sup>1</sup>

The validity of these arguments are of particular significance today because the Department of Defense, in response to criticism from Congress, the General Accounting Office and elements within the military departments themselves, has recently proposed the implementation of some very extensive and costly modifications to the present system.<sup>2</sup> Since that cost would have to be financed by the Military Services over the next several years, the question of the effectiveness of the present system has become one of considerable interest.

It is not the intent of this paper to answer the question of whether the Federal Cataloging System is the boon to or the doom of military logistics, but merely to explore, as objectively as possible, the existing program in the hope of increasing knowledge of its objectives, shortcomings and accomplishments. This hope is predicated on the premise that understanding follows knowledge and progress follows understanding.

No worth while review of the present cataloging system is possible, however, until some background knowledge has been gleaned as to its basic nature and the rationale which predicated its establishment. What, then, is the Federal Cataloging System? What does it do? What were the reasons for its development? The answers to these three questions can be found by examining the objectives of the System, its application to military operations, and its historical development within the Federal Government.

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<sup>1</sup>Catalog or Chaos?, Op. cit., p. 1.

<sup>2</sup>U.S. Department of Defense, the Defense Logistics Services Center, Catalog Review, Analysis and Modernization, (September, 1953).



### System Objectives

It is difficult to describe the objectives of the Federal Cataloging System precisely, for like the logistics organization that it serves, it is a complex and many-faceted thing. As enunciated by Congress during the hearings on the Defense Cataloging and Standardization Act, it was intended that the System do three things: First and foremost, it was to provide a single and central cataloging system which would list, just once, each movable thing (i.e. each item of tangible personal property) which is procured, stored or issued on a repetitive basis by any organization in the Department of Defense or in Civil Agencies of the Government. Second, it was to identify each item in such a way that it could be readily distinguishable from all other items. Third, it was to include such additional information regarding each item as was considered necessary for its proper management in the various supply systems of the Government.<sup>1</sup>

In essence, then, the primary objective of the System is to provide a single language of item identification to be used by all elements of the Federal Government. The result of adopting this common language of item identification is that the same item will be known by the same name, stock number, description, etc., no matter where it may be located in the various supply systems.

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<sup>1</sup>U.S. Senate, Committee on the Armed Services, Hearing on the Defense Cataloging and Standardization Act, 82nd Cong., 2d Sess., (June 3-4, 1952), pp 55-56



## Applications

Proper item identification is a fundamental prerequisite to improved efficiency in supply management operations. For instance, the use of a single identification language promotes:

1. Effective coordination in procurement through elimination of concurrent buying and selling of the same items and through the reduction of agency competition for critical items in the national economy.
2. Effective utilization of assets by facilitating supply support interchange between and among the military services and operating agencies.
3. Reduction of record keeping, personnel, storage space, and in some cases, inventories where items are found to be identical in a single system.
4. Increased standardization decisions by revealing the different varieties, types, and sizes of items in the supply systems.
5. Employment of uniform financial accounting systems.
6. Improved material requirements determinations and budgeting through more effective knowledge of total items stocked in the supply systems.
7. Improved government-industry relations since civilian contractors will use only one identification system for the Federal Government instead of many unrelated systems.
8. Improved surplus and excess material disposal operations by having a uniform identification on each item.

From the foregoing, it can be seen that the potential area of applications of the Federal Catalog System to logistics management covers the entire spectrum of operations from procurement through disposal. In this



respect it would be used to improve efficiency in those operations and increase interdepartmental cooperation in the Government.

### History

It may appear, at this point, that the Catalog System was the step-child of Congress which sprang, full-grown, from the minds of a few of the more enlightened individuals in that organization. Nothing could be farther from the truth. For, like any other complex system, it grew slowly over a period of years and Congress merely provided its Bar Mitzvah in 1952 with the passing of the Defense Cataloging Standardization Act. How, then, did it grow and what was the nature of the environment in which it matured?

The history of governmental logistics in this country centers around military supply and dates back to the Revolutionary War. The supply problems, were, however, not extensive or highly complicated. In those days, men brought their own uniforms, firearms and horses when they joined the service and also took care of other personal needs themselves. Thus, the conditions that would require a cataloging system did not exist. In 1820, when Eli Whitney established his firearms factory and started mass production techniques, spare parts first became a problem to the military.<sup>1</sup> The problem that did exist after that date, however, was limited mainly to firearms and this situation prevailed throughout the Civil War. It was not until the Spanish-American War, in 1898, that supply problems became complicated and acute. For the first time, sizable American Armies were fighting on foreign soil, separated from the United States by vast stretches of water. The administrative and supply systems of the War Department were overwhelmed by the unexpected and heavy demands placed upon it and to a

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<sup>1</sup>Catalog or Chaos?, op. cit., p. 2



considerable extent broke down. Problems of supply became acute, transportation was inadequate, and much confusion resulted. The need for adequate identification and marking of supplies, equipment and spare parts was clearly demonstrated.<sup>1</sup> However, the early collapse of the Spanish military organization brought the War to a rapid conclusion and thus forestalled the development by the United States of necessary supply identification techniques.

In World War I, the need for a uniform catalog system and adequate identification of military supplies again became clear. While tremendous efforts were made to keep the supply pipelines full, frequently, only minor quantities reached the ultimate consumer. The parts problem in particular, was frustrating. A large number of trucks, passenger cars, and motorcycles were used, with the Army alone purchasing 216 different vehicle types or models. Since interchangeability of repair parts was rare, it required approximately 450,000 different parts to maintain the 216 types of vehicles. Without an adequate identification or cataloging system, the parts often went astray and it has been estimated that only about 20% of the 450,000 parts ever reached their final destination.<sup>2</sup>

The Navy, on the other hand, in 1914 had established a "Navy Department Standard Stock Catalog." This catalog included all items which were generally used by ships and manufacturing departments at navy yards. The success of the Navy's catalog, during World War I, motivated the Chief Coordinator for General Supply of the Federal Services to initiate action to incorporate a similar system for all agencies of the Government. In response to his recommendations, Congress in 1929, authorized a Federal

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<sup>1</sup>Ibid., p. 3

<sup>2</sup>Ibid., p. 3



Standard Stock Catalog to be adopted by the Federal Agencies. The authorization was contained in the Naval Supply Bill of that year. In compliance with this authorization, the Bureau of the Budget directed the preparation of the catalog by the Federal Standard Stock Catalog Board, as part of the Federal Coordinating Service. In 1933, upon establishment of the Procurement Division of the Treasury Department, maintenance of the Federal Standard Stock Catalog was transferred to that organization. At the same time the Federal Coordinating Service was abolished.<sup>1</sup>

Regulations governing the operations of the Treasury Department's Procurement Division included the following guidelines concerning the Federal Standard Stock Catalog:<sup>2</sup>

1. Under the general direction of the Director of Procurement, the Assistant Director shall determine the articles to be listed and the data to be included in the Federal Standard Stock Catalog.
2. The head of each executive department concerned will be requested to report any articles which such department desires to be listed in the Catalog.
3. After the approval of the Director of Procurement, the sections of the Catalog shall be binding upon and govern all executive departments, and the catalog nomenclature, description, classification, and stock numbers shall be used in all interdepartmental work and correspondence pertaining to items of supply.
4. The Federal Standard Stock Catalog shall continue to be published, distributed, and financed in accordance with existing law.

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<sup>1</sup>Munitions Board and General Services Administration, Joint Report To Congress on the Federal Catalog Program, August, 1950, p. 11: Cited hereafter as MB and GSA Joint Report on Federal Catalog Program.

<sup>2</sup>Ibid., pp. 11-12



Though this would appear to have been a strong operating charter, in actual practice the use of the Federal Catalog by the Executive Departments was rather limited. This limited use was because of the lack of complete coverage of the Catalog which included only those items that the agencies themselves requested to be included in the system. For example, after the elimination of duplicate entries, there were only 230,000 items included in the Catalog as compared to an estimate of some 5,300,000 used by all agencies of the Federal Government.<sup>1</sup> In addition, the use of the Catalog was limited to those agencies that found it practicable to adopt the uniform system. Prior to World War II, only a relatively few agencies had found it practicable to participate in the system. Even in the Armed Forces, where the need for such a Catalog would appear most critical, the extent of participation left much to be desired.

This situation in the military was created by the fact that in the interim between the World Wars the Services had been greatly reduced in size, and geographic dispersion. The need for maintaining long supply lines and large quantities of equipment had therefore been reduced to a point where the necessity for a standard Cataloging System was no longer considered critical.

The advent of World War II, however, drastically altered this situation. The pre-war supply systems were completely unable to cope with the rapid changes in the state of the art of warfare such as amphibious operations and increased use of air power. Technological advances provided an

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<sup>1</sup>"Technical Identification Elements of Supply Cataloging," MBCA Newsletter, Vol. I, No. 2, (Munitions Board Cataloging Agency, September 25, 1950) pp. 1-2, cited hereafter as MBCA Newsletter, (September 25, 1950).



enormous influx of new items into the supply systems of the Services.<sup>1</sup> The Standard Stock Catalog was not geared to permit the rapid inclusion of these new items into its system. It was, therefore, abandoned by the various military logistics agencies such as the Army's Seven Technical Services, and the Navy's Six Technical Bureaus. These organizations developed their own identification and stock numbering systems. The pressures of wartime conditions made it difficult for each to properly coordinate its system with those of the other agencies. As a result, there were multitudinous systems and procedures varied with each system. Duplication was common and many shortages which appeared to exist were not true ones at all. This resulted from the fact that identical items in the various systems, were not recognizable because of the different identification and cataloging techniques employed.<sup>2</sup>

The supply systems were the products of wartime pressures and concentration was on the procurement and distribution of great masses of equipment rather than on the establishment of effective supply programs. The guiding concept of the Services appears to have been, "As much as possible, as quickly as possible, in as many places as possible." The fact that the practice of this idea was able to carry the country to ultimate victory is a tribute to America's phenomenal production capabilities rather than to any advanced supply management techniques. This victory, however, was made tremendously more difficult by the absence of an adequate system of item-identification.

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<sup>1</sup>U.S. Department of Defense, Office of the Assistant Secretary of Defense for Supply and Logistics, Supply Management Reference Book, (June, 1958), p. 14.

<sup>2</sup>Ibid., p. 15.



In 1944, Griffenhagen and Associates, a firm of Industrial Consultants, engaged by the Army to make a comprehensive study of the cataloging problem, reported that there were numerous and unintegrated segments of systems with many gaps and overlaps. It also stated that a single system of item identification would have saved the Army hundreds of millions of dollars, and possibly thousands of lives.<sup>1</sup>

In 1945, President Roosevelt, recognizing the danger inherent in this situation, directed that the Bureau of the Budget undertake the preparation and maintenance of a United States Standard Commodity Catalog. All cataloging systems then in operation in the Federal Government were to be utilized to the extent that they conformed to the Standard Catalog. In July, 1946, a special Catalog Board established in compliance with the President's directive, submitted a plan for a Uniform Federal Catalog System. The plan was reviewed by President Truman who reaffirmed the interest of the Chief Executive in the project and directed that further studies be continued. Shortly thereafter, the Treasury Department, stimulated by the President's interest, renewed its efforts towards establishing an effective cataloging program. A small working group was established in the Bureau of Federal Supply (formerly the Procurement Division) to develop plans for the new system. In this endeavor they were largely supported by the War and Navy Departments. Progress was, however, very slow since there was, then, a lack of funds in the Treasury Department to support the program.<sup>2</sup>

By 1947, the Secretaries of War and Navy had become concerned with this lack of progress. They therefore advised the Bureau of the Budget and

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<sup>1</sup>MB and GSA Joint Report on Federal Catalog Program, op. cit., p. 15.

<sup>2</sup>MB and GSA Joint Report on Federal Catalog Program, op. cit., p. 16.



the Treasury Department of the urgent need for such a system in the Armed Forces. They requested that funds be provided for the activation of a Federal Catalog System in which the military could participate. The Treasury Department, in turn, requested a deficiency appropriation for 1948 to support the establishment of an adequate central cataloging staff. Congress, however, denied the request until such time as a better coordinated plan for a uniform Federal Catalog System could be submitted by the Executive Departments concerned.

In the face of this further delay the Military Departments determined to take independent action. On July 3, 1947, the Munitions Board, an agency of the Armed Services, created an office to make a continuing study of all cataloging operations, and to implement the establishment of a Joint Service cataloging system. With the creation of the Department of Defense later that year, the cataloging functions of the Army-Navy Munitions Board were transferred to the Munitions Board Cataloging Agency.<sup>1</sup> This agency operated outside the military departments but within the Department of Defense. The transfer was motivated by the recognition that the Department of Defense needed a single item identification system on which to build a coordinated, inter-service supply system. This feeling was clearly expressed by the first Secretary of Defense, the late James Forrestal, who in May, 1948, called to the attention of the Secretaries of the Army, Navy and Air Force, the importance of the Munitions Board's cataloging program, and stated:<sup>2</sup>

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<sup>1</sup>MB and GSA Joint Report on Federal Catalog Program, op. cit., p. 13.

<sup>2</sup>MBCA Newsletter, Vol. I, No. 2, (September 25, 1950), op. cit., p. 4.



".....When the project has been advanced sufficiently, each supply system of the services will select for its own use, such categories of items from the central pool as it needs to meet its own purposes, and publish these in such a form as will best further its purposes, but individual items will bear the same characterization in every catalog segment thus prepared and used."

Though this was essentially a military effort, coordination between the military Services and civilian agencies was not discontinued. In June of 1948 an agreement was signed between the Chairman of the Munitions Board and the Director of the Federal Supply Service. In essence, this agreement said: (1) that a Federal Supply Catalog System must be developed for all agencies of the Federal Government; (2) that the nation's security required that a single cataloging system in the Department of Defense be established as rapidly as possible; (3) that the interests of the Federal Government could best be served through close cooperation and working contacts between the cataloging activities of the civil and military agencies; and (4) that both the Munitions Board and the Federal Supply Service would continue to support legislation for the establishment of a Federal Cataloging Program.<sup>1</sup>

This coordination between the military and civilian agencies was strongly supported by the Commission on Organization of the Executive Branch of the Government (Hoover Commission). In its February, 1949, report, the Commission pointed out the need for a single Government Cataloging System and further stated:<sup>2</sup>

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<sup>1</sup>MB and GSA Joint Report on Federal Catalog Program, op. cit., pp. 20-22.

<sup>2</sup>The Commission on the Organization of the Executive Branch of the Government, Report to the Congress on the Office of General Services, (February 12, 1949), p. 32. Hereafter cited as Hoover Commission Report on the Office of General Services, (February 12, 1949).



"Since the recent war, the national military establishment has made some progress toward a coordinated system of property identification and the Bureau of Federal Supply is now cooperating in this endeavor. Nevertheless, a declaration of congressional policy insisting upon a Federal Commodity Catalog is necessary to insure conformity of some of the old-line civilian agencies and to insure continued military-civilian cooperation."

Congressional action took place in the spring of 1949 when the 81st Congress enacted legislation which required that the Administrator of General Services establish and maintain a uniform Federal Catalog System which would identify and classify material under control of the Federal Agencies. This system was to be established in coordination with the Department of Defense. Further congressional action was taken in February, 1950, when a joint Senate-House Resolution was passed which stated that the development of a single Supply Catalog System for all agencies in the Federal Government was of vital necessity to the national security and the civilian economy. It expressed the sense of the Congress that the Secretary of Defense and the Administrator of General Services should expedite the development of a coordinated plan for the completion of the Federal Catalog System.<sup>1</sup>

In response to this resolution and in view of the Department of Defense's predominant interest in the system, the Administrator of General Services delegated to the Secretary of Defense the authority for all catalog development. This authority was in turn immediately redelegated to the Chairman of the Munitions Board.

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<sup>1</sup>U.S. Senate, Hearing on the Defense Cataloging and Standardization Act, (June 3-4, 1952) op. cit., p. 51



By 1952, Congress, having become dissatisfied with the slow progress in implementing the Federal Program, passed, after extensive hearing on the subject, the Defense Cataloging and Standardization Act which provided the statutory basis for establishment of a single catalog system for the Federal Government. This Act established the Defense Supply Management Agency, under the Secretary of Defense, and charged it with the responsibility of developing and coordinating a central cataloging system with the General Services Administration.<sup>1</sup>

In 1953, the Defense Supply Management Agency was abolished by President Eisenhower's reorganization plan of that year and responsibility for administration of the catalog program was passed to the newly created Office of the Assistant Secretary of Defense for Supply and Logistics (QASD (S&L)).<sup>2</sup>

Under the stimulus provided by Congress in the Cataloging and Standardization Act and with the energetic support of the QASD (S&L) the program made significant advances. An organizational structure was established in the Department of Defense to insure proper implementation of the system and its continuous maintenance. Operating procedures were developed and coordinated among the participating activities. The various phases of conversion from the local systems to the central system were arranged in sequence and schedules promulgated. All items then in use in the various supply systems were redescribed in accordance with the Federal Catalog System rules and procedures. The old systems were then converted to the new Federal System.

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<sup>1</sup>U.S. Congress, Cataloging and Standardization Act, Public Law 436, 82d. Cong., 2d. Sess., (1952), pp. 2-3

<sup>2</sup>Catalog or Chaos?, op. cit., p. 5.



Conversion of all systems within the Department of Defense was substantially completed by the end of 1958.<sup>1</sup> Lack of funds in civilian agencies of the government, however, greatly hampered their participation in the program, and to date, only a relative few have completed conversion.

The last significant modification to the system took place in 1961 when authority for overall administration of the program was transferred to the newly established Defense Supply Agency. (DSA).

#### Summary

This chapter attempted to develop certain introductory information concerning the nature of the Federal Catalog System. In brief, it was shown that the need for a uniform cataloging system in the Federal Government grew as the logistics requirements of the Government became more complex and demanding. In recognition of this need, particularly in the military area, the 82st Congress passed the Defense Cataloging and Standardization Act of 1952. This legislation established the Federal Catalog System, as we know it today, in the hope of increasing military effectiveness, aiding the national economy, and promoting greater efficiency in logistics operations.

The mission of the System is to develop, establish and maintain a single uniform item identification system in the Federal Government. It applies to all items of personal property which are repetitively procured, stocked and issued in the supply systems of the military services and civil agencies. The manager and by far the predominant user of the system is the Department of Defense. Coordination with the civil agencies is carried out through the General Services Administration.

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<sup>1</sup>Catalog or Chaos?, op. cit., p. 6.



Under the Cataloging and Standardization Act the Secretary of Defense is responsible for accomplishing the development and maintenance of a single catalog system within the military departments. In order to carry out this assigned task it was necessary to establish an organization, develop the necessary procedures, divide the job into workable segments, and assign the responsibility to those who were best able to accomplish each job.

The importance of the organizational structure, responsibility assignments, and operating procedures developed by the Secretary of Defense in implementing the System cannot be overstated. The success or failure of any dynamic program hinges on the effectiveness of the organization and the rules by which it is administered. The Federal Catalog System is no exception. Therefore, the next chapter in this review will examine those aspects of the system in some detail.



## CHAPTER II

### THE SYSTEM

Responsibility for the Federal Catalog System rests at three different organizational levels within the Federal Government. At the first level, the Secretary of Defense is responsible for its overall administration. At the next level are the Military Departments and the Federal Supply Service of the General Services Administration which represents the Civilian Agencies. These organizations are charged with individual, departmental direction control and coordination. At the third level are the cataloging offices of the various departments and agencies where the actual item identification work is performed.

Since the Department of Defense is the primary manager of and major contributor to the System this chapter will focus on its administration.

#### Responsibilities

Within the Department of Defense, the Office of Assistant Secretary of Defense for Installations and Logistics is responsible for overall administration of the Federal Catalog System, and for final approval of all cataloging plans, policies and programs. This office insures Department of Defense participation with the General Services Administration, international agencies, and industry on all cataloging matters.

The Defense Supply Agency administers the operations of the Federal Catalog System in accordance with the policies, plans and programs provided



by the Office of the Assistant Secretary of Defense, including development, review approval and control of the operational cataloging procedures, and rules for the Federal System.

The Military Departments coordinate operations and monitor compliance with the policies, procedures and schedules established by the Office of the Assistant Secretary of Defense and by the Defense Supply Agency.<sup>1</sup>

The Defense Supply Centers and the military inventory control points, are in turn, responsible for performing the actual day-to-day cataloging work in accordance with the policies and procedures promulgated by higher authority. In their capacity as supply system managers, they deal directly with an organization called Defense Logistics Services Center on all routine cataloging matters. The Defense Logistics Services Center is a field activity of the Defense Supply Agency and conducts the overall cataloging program in the Department of Defense. The Defense Logistics Services Center is responsible for the central processing of item identifications submitted by the services, assigning stock numbers to supply items, and maintaining the complete master files of all identification data. The Defense Logistics Services Center employs several hundred people for its cataloging activities and deals directly with some 50 military cataloging offices that employ over 4,000 individuals.<sup>2</sup>

Procedures and instructions are developed, or at least approved and coordinated, at the Department of Defense level, then promulgated to field activities through the publication of Federal Cataloging manuals and

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<sup>1</sup>U.S. Department of Defense, Office of the Assistant Secretary of Installations and Logistics. DOD Directive 4130.2, Subj: Development, Maintenance and Utilization of the Federal Catalog System in the Department of Defense, (December 4, 1963). pp. 2-3

<sup>2</sup>GAO Report on the Federal Catalog System, (May 31, 1963), op. cit.  
pp. 3



handbooks. Appendix A contains a brief description of each of these publications.

During the initial phases of implementation the military and civilian officials charged with designing the Federal Catalog System closely studied the 17 cataloging systems which then existed in the Department of Defense.<sup>1</sup> It was found that, though methods in each system were different, basic principles of cataloging were essentially the same. Review and identification indicated that they would be equally valid for use in the Federal System.

#### Principles of Cataloging

All military cataloging consists of the processes of item identification, commodity classification, stock numbering and data communication.<sup>2</sup>

In regard to item identification, technical research is the basis for determining each different item of supply. The concept (the understanding, idea, etc.) of an item of supply is expressed in the identification process. A proper item identification must contain at least the minimum technical data necessary to establish clearly those essential characteristics, which give to it its unique quality, make it what it is, and differentiate between it and other items of supply in the system.

An item of supply is distinguished by two basic characteristics; physical and performance. Generally, these characteristics can only be disclosed through a technical evaluation which identifies the item under a generic name and describes it in detail.<sup>3</sup>

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<sup>1</sup>The Commission on Organization of the Executive Branch of the Government, Task Force Report on the Federal Supply System, Appendix B., (January 13, 1949) p. 94

<sup>2</sup>MBCA Newsletter, (September 25, 1950), op. cit., p. 1.

<sup>3</sup>U.S. Department of Defense, Defense Supply Agency, An Introduction to the Federal Catalog System (August, 1964) pp. 3-4.



The name given is highly important because it establishes identity and aids classification. A named item should be so definitive that it answers the question, "What is it?" Considerable study is therefore necessary to find a proper name to identify an item or group of items having the same characteristics.

The basic name given an item is used to determine the broadest scope of characteristics which a group of items may have in common.<sup>1</sup> For example, "camera" denotes all items used to record images on light-sensitive material. The definitive item name, on the other hand, must include sufficient information to distinguish between various types of things included in the basic name. For example, the item name "camera, still picture," distinguishes this particular type of camera from all motion picture cameras. Because many English nouns have more than one meaning the basic name cannot be fully understood until modifiers are applied. Modifiers added in developing the full item name will reveal characteristics that indicate what it is.

Another peculiarity of the English language is that it is full of synonyms. Extreme care must therefore be exercised in the selection of the item name in order to avoid confusion and ambiguity. In cataloging, it is necessary to examine the meanings of words carefully and to select the one most appropriate to the item being described. At the same time, consideration must be given to the practices of industry in naming such items so that the one chosen will not complicate supply operations.

Describing the unique characteristics of the item of supply is the second step in the process of establishing an item identification. When an

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<sup>1</sup> NACA Newsletter, (September 25, 1950), op. cit., p. 2.



item can be described this is usually done directly by using words to depict its essential characteristics such as material composition, dimensions, and performance capabilities. When it is not possible and/or practical to employ word description, reference to item-identifying numbers and supporting technical data such as manufacturers blue prints, specifications, parts numbers, etc., are usually cited.<sup>1</sup>

The descriptive method of identification usually requires the use of uniform item names and description patterns. The description pattern is a guide by which item identifications are written and is a necessary tool for the development of adequate descriptions. A specific description pattern contains a series of requirements regarding technical characteristics of the item of supply covered by an approved name.<sup>2</sup> Replies to these requirements result in a statement of the characteristics of the item of supply. This statement is, then, the item identification.

The reference method of identification is an indirect process of identifying items of supply, not by words but by reference to item-identifying numbers and supporting technical data of one or more manufacturers.

A cataloging system may use either the descriptive method, the reference method or a combination of both in the process of preparing item identifications.

Having established the uniqueness of an item of supply through the item identification, which includes the name and explicit identification data, it is then necessary to classify the item by its related family

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<sup>1</sup>U.S. Department of Defense, the Armed Forces Supply Support Center, Federal Manual for Supply Cataloging, Chapter 2, Item Identification, (July, 1961), Sec.210-2

<sup>2</sup>MBCA Newsletter, (September 25, 1950), op. cit., p. 2



grouping or application.<sup>1</sup> This is done so that similar items can be brought together under one general heading for administration purposes. For example, "camera, still picture" would be classified under the family grouping, Photographic Equipment. The objective of a system of classification is to provide a means of dividing the total inventory of items into related segments so that management responsibilities can be assigned on a specialized basis. A classification system is also helpful in presenting the items in logical sequence for use in printed consumer catalogs.

Once an item has been identified and classified, action should be taken to insure its identity is fixed and its relationship to other items in the system established. This action can be accomplished by the assignment of an identification or stock number to the item. This number must be so constructed that it does not duplicate any other number in the system which may designate a different item of supply.<sup>2</sup>

The need for such an identification number exists, in varying degrees, in all cataloging systems but it is absolutely essential in the more complicated and sophisticated systems where electronic data processing, requisitioning or printed catalogs are in use.

Since the main purpose of any military cataloging program is to provide the supply system with a tool for facilitating operations, some sort of communication is necessary between the cataloger and the supply manager. Separate the two principals geographically, and multiply their number by the thousands, and it becomes obvious that the system that is needed is a complex and comprehensive one. Therefore, any military cataloging system must contain detailed procedures for publication and transmission of data.

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<sup>1</sup>MBCA Newsletter, (September 25, 1950), op. cit., p. 6.

<sup>2</sup>Defense Supply Agency, An Introduction to the Federal Catalog System, (August, 1964), op. cit., pp. 11-12.



The term, "item of supply," has been used frequently in this discussion of cataloging principles. The term is more complicated than might appear on the surface and requires some further clarification. It is concerned with the relationship between items as they are produced by a manufacturer and items as they are stocked and managed in military supply systems.

The term "item of supply," refers to items as they are stocked in supply systems and "item of production," refers to those produced by a manufacturer. An item of production consists of pieces produced by a manufacturer, all of which conform to the same engineering drawings or specifications, and which receive like quality control and inspection. In other words, it is an item as manufactured in accordance with the technical control of the manufacturer. On the other hand, the item of supply reflected in an item identification, is determined by the operational and supply support responsibilities of each supply system.<sup>1</sup>

Within the tolerances established by the item identification, an item of supply may be a single item of production, two or more items which are interchangeable, or a more precise, quality-controlled item than the usual one. This means that a single item of production, from a single manufacturer, may be an item of supply and have assigned to it a single item identification. It also means that one or more items of production from one or more manufacturers may constitute an item of supply and have a single item identification. It means, too, that a more precise item of production, such as a close-tolerance item, selected from a normal production run, may be an item of supply having its own stock number while the normal item of production, from the balance of the run, may also be an item of supply having

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<sup>1</sup>U.S. Department of Defense, the Armed Forces Supply Support Center, The Federal Catalog System in the Department of Defense, (September, 1959), part I, p. 14-16.



another stock number. Various operational requirements in different supply systems may cause an item of production to be included validly in more than one item of supply.<sup>1</sup>

This relationship between items-of-supply and items-of-production is generally known as the "item of supply concept." It is fundamental to industrial operations. The interchange and substitution of parts and related stock management based on their use, is a normal part of almost any enterprise. Inventory management and therefore any catalog system must identify only items of supply.

A review of procedures governing the operations of the Federal Catalog System clearly shows the application of the principles and concepts discussed heretofore.

#### Federal Catalog Design

A single name is established for each item of supply in the system and commercial names are used where uniform ones exist in industry or where industry has agreed to uniformity. Approximately 21,600 uniform names are currently in use in the Federal System. These are called "approved item names" and are published, together with their definitions, in the Federal Item Identification Guide for Supply Cataloging. This guide also lists 36,000 other names, including those used by industry, which are cross-referenced to the approved names.<sup>2</sup> The Federal Catalog System, therefore, in addition to establishing uniform names in the military supply systems, bridges the gap in language between government and industry.

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<sup>1</sup>Ibid., p. 14.

<sup>2</sup>Federal Manual for Supply Cataloging, Chapter 2, "Item Identification," (July 1961), op. cit., Subsection 221.



In the preparation of the identification data for an item of supply, the Federal Catalog System uses two basic methods of item identification: descriptive and reference.

In the descriptive method, all item descriptions are written in accordance with approved patterns. Each item name so approved for use in this method, is referenced to a specific pattern. Completed description patterns are called Federal Item Identifications and are published on individual cards. Description patterns are numbered sequentially beginning with D P No. 1. The letter B following the number indicates the first revision of the pattern. Over 12,000 description patterns have been developed for use in the Federal Catalog System.<sup>1</sup> Figure 1 contains a typical example of a completed description pattern.

As an additional tool the Federal System employs illustrations and drawings to represent pictorial characteristics of items of supply that cannot be presented in words, such as specific shape, angle, size, etc.. These are called reference drawings and over 7,000 are in use.<sup>2</sup>

The reference method of item identification is used principally for parts peculiar to proprietary items, special application items or others which cannot be economically identified by the descriptive method. This method is based upon reference to the manufacturer's data which includes his address (coded) and his identifying number or numbers for the item being identified. The manufacturer's number for the item is supported by his blue-prints, specifications, and methods of manufacture and is

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<sup>1</sup>Federal Manual for Supply Cataloging, Chapter 2, "Item Identification," (July 1961), op. cit., Subsection 230.

<sup>2</sup>Defense Supply Agency, An Introduction to the Federal Catalog System, (August 1964), op. cit., pp. 6-7.



FEDERAL SUPPLY CATALOG		Item Identification Card	
FEDERAL STOCK NUMBER	FED. ITEM IDENTIF. NO.	TYPE OF ITEM IDENT.	ACTIVITY ITEM DESIGNATOR
6720	597-2634	1b	1703A KE-00-45776
<p><b>DESCRIPTION</b></p> <p>1. CAMERA, STILL PICTURE</p> <p>2. general purpose type</p> <p>3. film load data</p> <p>a. roll film</p> <p>b. max capacity</p> <p>(1) 12 exposures</p> <p>(4) no. 120 roll size</p> <p>c. negative size</p> <p>(1) 2-1/4 in. w</p> <p>(2) 2-1/4 in. lg</p> <p>4. operating power data</p> <p>a. hand operated</p> <p>b. N/A</p> <p>5. lens data</p> <p>a. 85 mm focal lg</p> <p>b. f3.5 max aperture</p> <p>c. N/A</p> <p>6. shutter data</p> <p>a. between the lens type</p> <p>b. 1 1/2, 1/5, 1/10, 1/25, 1/50, 1/100, 1/200, 1/400 sec speed range</p> <p>7. double lens reflex focus</p> <p><b>DISCUSSION</b></p> <p>1. adapter ring series V, filter 2. case, leather, filter 3. cover, double lens 4. filter, K2, series V 5. filter, polaroid, series V 6. flash gun, Griflash B-C 7. lens shade, conviction 8. mount data 9. mount data 10. N/A 11. over-all dim., A/A 12. w/carrying case 13. accessories 14. 15, 16. N/A 15. data regarding the nfr a. Graflex Inc b. Rochester, NY c. code no 25734 d. type no. 22, model 400 e. olive drab color</p> <p><b>MANUFACTURER DATA</b></p> <p><b>DISCUSSION ELEMENT</b></p>			
DD FORM 1 JULY 55 PREVIOUS EDITIONS OF THIS FORM MAY BE USED		D PRECED CARD A THIS CARD 17 JUL 58 E	SPECIAL NOTATIONS

Fig. 1.—Completed Description Method Identification



considered to be the most authoritative identification available. Reference method identifications are published and distributed as punched Electronic Accounting Machine Cards. Figure 2 contains an example of these EAM cards.

In order to provide full protection for all items of supply as well as the required degree of identification, the Federal Catalog System employs five types of item identifications under the two basic methods of identification.<sup>1</sup>

The descriptive method encompasses the following three types:

Type I. Used for items of supply representing single or multiple items of production, describable by words or numbers, and where neither the manufacturer nor his part number are required as an integral part of the identification.

Type IA. Used for items of supply representing a single, specific item of production, describable by words or numerals, but where the manufacturer or his part number are necessary elements of the item identification.

Type IB. Used for items of supply representing a single, specific item of production, describable by words or numerals, and where the manufacturer and his part number are necessary elements to the item identification. In this case, however, the manufacturer's part number is not item-identifying and requires additional data.

The reference method encompasses the following two types of identification:

Type II. Includes items of supply representing single or multiple items of production not describable by words and where the manufacturer

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<sup>1</sup>Defense Supply Agency, An Introduction to the Federal Catalog System (August, 1964), op. cit., pp. 8-9.



Fig. 2.—Completed Reference Method Identification



and his part number are the most satisfactory means of item identification.

Type IIA. Includes items of supply representing a single, specified item of production, not describable by words, where the manufacturer with his part number is the most satisfactory means of identification, but where said number is not completely item-identifying without the addition of words necessary to differentiate between multiple characteristics to which he has assigned the same number.

The vast number of items in the supply systems of the Federal Government and its world-wide scope of operations make it impractical, if not impossible, to manage these systems on an item-by-item basis. The Federal Government has therefore developed a classification system which provides a grouping arrangement that facilitates segmentation of similar material for specialized management.

The Federal Supply Classification System, as developed in the Government, establishes uniform commodity groups, and classes for all items. It currently includes 76 major families called FSC groups. Each of these 76 groups is assigned a two digit code. Since the two digit structure permits 99 groups, it can be seen space has been left for anticipated expansion.<sup>1</sup>

As a further subdivision for management purposes, each two digit FSC group is divided into classes. Each class is designated by an additional two digits, thus making a four-digit classification. For example, FSC group 67, Photographic Equipment and Supplies, is divided into the following five classes.

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<sup>1</sup>Defense Supply Agency, An Introduction to the Federal Catalog System, (August, 1964), op. cit., p. 13.



6710 - Cameras, Motion Picture

6720 - Cameras, Still Picture

6730 - Photographic Projection Equipment

6740 - Photographic Developing and Finishing Equipment

6750 - Photographic Supplies

There is a potential of 99 classes in each group. At present, however, only 566 classes have been established within the 76 FSC groups.<sup>1</sup>

An item may be classified either by what it is or by where it fits. The term "application coding," refers to the classifying of an item according to where it fits. This takes place, primarily, in machinery and equipment areas. Classifying an item by "what it is," is sometimes called, "commodity coding." No matter how it may be coded, each item in a supply system which is identified under the Federal Catalog System is assigned to one, and only one, four-digit class.

Having established the uniqueness of an item of supply through a Federal Item Identification, and assigned it to its proper FSC classification, the item is then designated by a Federal Stock number. This number, like the one shown below, is an 11-digit number, consisting entirely of numerals, e.g.,

6720 - 597-2634  
Camera, Still Picture

The first four digits are the Federal Supply Classification code number assigned to the item, establishing its relationship to other items. The remaining seven digits are a sequentially assigned serial number which fixes the identity of a single item of supply. These last seven digits are

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<sup>1</sup> The Federal Catalog System in the Department of Defense, (September, 1959) part I, op. cit., pp. 17-18.



assigned to just one item of supply and are referred to as the Federal Item Identification Number (FIIN). These are assigned as an identification is approved and there is no relationship between one FIIN and the next in sequence numerically. This random assignment of FIINs has distinct advantages. It permits assignment during routine processing without the necessity of insuring that the number is in any particular class or group. Also, when the status of an item changes, as in the transfer to a different class, there is no need to change the FIIN because it remains with the item as long as it exists in a supply system. The Federal Stock Number will change, if the item is moved from one FSC class to another, but the last seven digits (FIIN) of the stock number will never change. Under this system there are 9,999,999 FIINs available for use.<sup>1</sup>

The Federal Catalog System, is designed to provide full-time protection to items manufactured by industry and stocked by military supply systems. The item of production of one manufacturer is not brought together with that of another manufacturer as a single item of supply unless the physical, functional, and performance characteristics of both are suitable for use in all intended applications. Complete Federal item identifications are predicated on thorough research and specific knowledge of operations on applications of each item. Based on this research and knowledge, the inventory manager who is responsible for the operation, performance and maintenance of equipments, determines the item-of-supply concept and selects the specific type of item identification method to be used.

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<sup>1</sup>Defense Supply Agency, An Introduction to the Federal Catalog System, (August 1964), op. cit., pp. 11-12



Almost all items of supply are related in some way to one or more manufacturers or to some document such as a specification, a standard or a purchase description. Manufacturers, in almost all cases, identify their products by a part number, a catalog number or a drawing number. Likewise, a majority of the items of supply covered by Government specifications, standards, etc., are identified within the document by type, grade, class, size or specific part number. Under the Federal Catalog System participating activities are required to submit with an item identification all such numbers known to be related to the item of supply, represented by the item identification.<sup>1</sup> This is done regardless of the type of identification used. These references, together with the identity of their source, are recorded in the central catalog files at the Defense Logistics Services Center. This establishes a broad base of data for determining the proper relationship between items of production and items of supply.

As another method of protection for the item of supply, no modification to approved description patterns or item names can be made until such changes have been checked out with every interested cataloging activity. This insures that no changes are made to these vital cataloging tools without the knowledge of all supply managers concerned.

To determine the specific organizations which must be contacted during such collaboration efforts, every activity having management or cataloging responsibility for an item of supply, is required to report this fact to the Defense Logistics Services Center, together with the degree of responsibility exercised and the status of the item in its system. This information is recorded in the master catalog files for each identification.

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<sup>1</sup>The Federal Catalog System in the Department of Defense, (September, 1959), part IV, op. cit., p. 2.



The communication of cataloging information between various participating activities in the military services is accomplished through the use of an EAM data transmission system as well as with printed book-type catalogs.

The transmission of data between the cataloging offices and the Defense Logistics Services Center is accomplished by using punched paper tape and leased telephone lines. At the service cataloging office all data necessary for the preparation of a complete item identification is printed on the appropriate description patterns or EAM cards with special typewriters which simultaneously punch the identical information on paper tape. This information is then converted into electrical impulses and transmitted by telephone lines to the Defense Logistics Services Center or to other cataloging activities. As the transmission is received, the electrical impulses are converted back to punched paper tape. This tape is then used to reconstruct identical description patterns or EAM cards to those at the originating activity.<sup>1</sup>

This data system was established in 1959. It replaced the manual system then in use and has reduced item identification transmission and processing time from approximately 34 days to less than one week. It also allows cataloging activities to communicate with each other and/or the Defense Logistics Services Center on proposed changes to cataloging tools (description patterns, item names, reference drawings, etc.). This rapid communication facilitates timely collaboration and coordination among interested activities.

The printed book-type catalog is another means of communicating

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<sup>1</sup>Federal Catalog System in the Department of Defense, (September, 1959), part V, op. cit., pp. 3-4.



information in the Federal Catalog System. It is not, however, used as extensively as might be anticipated. The great number of items in the System, and the frequent additions, deletions and modifications which are made to it every day, make the use of a single printed catalog highly impractical. For this reason the Federal Catalog is basically an EAM card catalog. Each single item identification is printed on an 8x5 card for descriptive type identifications and on punched cards for the reference types.

The master file of all cards in the Federal System is maintained at the Defense Logistics Services Center. Tailored decks of cards pertaining to specific managing or cataloging activities are distributed through the wire transmission system by the Defense Logistics Services Center. In other words, each activity normally receives and maintains only those identifications for items in the FSC class in which it has an interest. These cover the items in their supply systems.<sup>1</sup>

From these card catalogs, each activity obtains uniform identification data for inclusion in its system and for use in the various publications that it may choose to distribute.

The use of printed book-type catalogs for communicating data is the responsibility of the various supply system managers and they may design their printed catalogs, stock lists, etc., individually, to meet specific requirements.

The use of this type of combination card and printed catalog system is considered effective and economical for the Federal System since it permits arrangement of data in the format necessary for the various users in the

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<sup>1</sup>Defense Supply Agency, An Introduction to the Federal Catalog System, (August, 1964), op. cit., pp. 15-16.



military services. At the same time, the use of common item identifications guarantees a single identification language among the various systems.

#### Maintenance of Federal Catalog System

As was previously pointed out, the Federal Catalog System was implemented in three phases. The development and conversion phases were completed in the Department of Defense in 1958. At that time, the System entered the "maintenance phase."<sup>1</sup> This term is somewhat misleading, in that it implies something static and unchanging. In the Federal Catalog System, however, this particular phase is probably the most dynamic of the three which make up the program.

To maintain this System, catalog data must be provided for all new items as they are processed. Data must be revised as supply practices and techniques change and identification information must be processed as items drop out of the various supply systems. Above all, these services must be provided at high speeds as required by the day-to-day operations of the military supply managers. Since over a million items must be processed in the maintenance phase of the system each year, the procedural steps which are used are highly important.

The greatest percentage of current operational effort in the System today involves the submission of item identifications for new items of supply requiring assignment of Federal Stock Numbers. A review of the basic steps involved reveal the importance of the concepts and principles previously discussed in this chapter, and place them in proper perspective as regards actual cataloging work effort.

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<sup>1</sup>U.S. of Representatives, Committee on Government Operations, Hearings on the Federal Catalog Program, 83d Cong. 2nd Sess., (January 14-26, 1954), p. 86.



When a new item is procured for repetitive use in a service supply system the manager apprises the appropriate service cataloging office of this fact and forwards to it all the necessary or available technical information. Upon receipt of this data the concerned activity performs the following processing steps:<sup>1</sup>

1. Cataloging personnel conduct a technical review of the available data and determine the proper item of supply concept. This then is used in relating the various items of production, which may be applicable to the item of supply being cataloged.
2. The method of item identification (descriptive or reference) which should be used in describing the item of supply is determined by the types of identification to be employed.
3. The item of supply is named classified and described using the appropriate, approved cataloging tools and forms. (Item names, description patterns, reference drawings, etc..)
4. Completed item identifications are submitted via wire transmission to the Defense Logistics Services Center for screening and assignment of a Federal Stock Number.

Upon receipt of this data at the Defense Logistics Services Center it is reproduced on the appropriate forms and punched cards. Reference and descriptive item identifications are separated for processing.<sup>2</sup>

Items identified by the descriptive method are processed as follows:

1. The item name, description pattern and reference drawings

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<sup>1</sup>U.S. Department of Defense. The Defense Logistics Services Center. Federal Manual for Supply Cataloging, Chapter 4, "Operating Procedures," (September, 1962), Section 420.

<sup>2</sup>The Federal Catalog System in the Department of Defense, (September, 1959), Section III, op. cit., pp. 37-44.



are reviewed and verified to insure that they conform to those tools approved for use in the system. Corrections or clarifications are requested from the submitting activity where appropriate.

2. The Federal Supply Classification Code assigned to the proposed item identification is verified for acceptability. If errors are found in the Federal Supply Classification Codes corrective action may be taken by the Defense Logistics Services Center or the submitting activity will be contacted in cases where appropriate corrective action cannot be determined.

3. The proposed item identification is reviewed against the appropriate description pattern to insure that all requirements have been met and that all replies are understandable and complete. Incomplete replies, inconsistent with the description pattern requirements, may be cause for rejection and return for corrective action to the submitting activity.

4. When the Defense Logistics Services Center has established that the submitted item identification has been correctly prepared, it is screened against the item characteristics file to determine if duplication exists. If it is found that the characteristics of this proposed item duplicates those of an item already in the system, then the submitting activity is advised of this fact and is directed to use the existing stock number. If, however, the screening indicates that the proposed item identification is truly a new item of supply, a new Federal Stock Number is assigned, the submitting activity is advised of the new number, and the item identification is entered into the master catalog files.

Items identified by the reference method are handled somewhat differently. The process is as follows:

and will continue to do so. This is the only way to ensure that the public and the private sectors will be able to work together to develop and implement the kind of policies that will help to create a more sustainable and equitable society.

My second point is that, notwithstanding the significant progress that has been made in recent years, there is still much more to be done to address the challenges of climate change. We must continue to work together to develop and implement policies that will help to reduce greenhouse gas emissions and to build a more sustainable and equitable society for all.

Thank you for your attention and for your questions. I look forward to your comments.

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1. Proposed item identifications are reviewed for adequacy and entirety.

2. The reference number contained in the proposed item identification is screened against reference numbers related to previously stock-numbered item identifications. If one or more of the reference numbers submitted with the proposed item identification matches reference numbers related to an existing item identification, the submitted item identification and the existing one are further compared to see if they represent the same item or items of production and consequently the same item of supply. In the cases where matches are made, the Federal Stock Number already assigned is furnished the activity submitting the proposed item identification.

3. If no matches are discovered or if matches are determined invalid, the proposed item identification is considered to represent a new item of supply and a Federal Stock Number is therefore assigned and recorded in the master files.

This description of the processing steps used in the submission of a new item of supply for inclusion in the Federal Catalog System is typical of the processing steps used for all types of submissions. It has been greatly capsulized and simplified since any detailed description would literally require several volumes. It does, however, indicate the effort which is expended on a single transaction in order to eliminate duplication and insure the integrity of the System. Multiplication of this one transaction by 2,000 brings an approximation of the daily level of operations required to maintain the System in a viable condition.<sup>1</sup>

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<sup>1</sup>This figure calculated on the basis of 250 working days per year and 600,000 submittals per year. GAO Report on the Federal Catalog System, (1963), op. cit., p. 3



### Summary

This chapter attempted to describe the organizational structure, responsibility assignments, concepts and procedures by which the Federal Catalog System is administered in the Department of Defense. The treatment was, of necessity, brief and attempted to cover only the more important aspects of the system.

This chapter disclosed that policy determination for the System is the responsibility of the Assistant Secretary of Defense for Installations and Logistics. He in turn, works closely with the Defense Supply Agency and with the Military Services. Actual cataloging work is carried on directly between the various service field cataloging offices and the Defense Logistics Services Center. The cataloging offices prepare the detailed item descriptions which are reviewed and processed into the central catalog file by the Defense Logistics Services Center.

The System was designed on the premise that basic cataloging operations must consist of naming, describing, classifying, numbering and communicating item identification data to the ultimate users. The system designed to implement these basic operations incorporates standardized techniques or tools for item identification and an EAM wire transmission system for rapid processing.

Attempts have been made to make the system flexible and responsive to individual service requirements. To this end, the relationship between items of production and items of supply are carefully controlled; both card-type and book-type catalogs are used; and extensive collaboration among cataloging activities is maintained.



This then, is the System. In the next chapter what has been reviewed here will be used to evaluate its effectiveness, accomplishments and failings.



## CHAPTER III

### ACCOMPLISHMENTS AND DEFICIENCIES

As was pointed out in the earlier chapters, the idea of a Federal Catalog System was conceived of military and economic necessity and represented the combined efforts of the country's top leaders. It was implemented with the expectation that its successful utilization would produce military and economic benefits of considerable magnitude. It was anticipated that the utilization of a single identification language would:<sup>1</sup>

1. Promote more effective coordination in procurement and reduce service competition for critical items in the economy.
2. Eliminate concurrent buying and selling of the same item by different services.
3. Improve utilization of assets by facilitating the interchange of material among the military services.
4. Reduce the size of inventories where items are found to be identical in a single system.
5. Increase standardization decisions by revealing the variety of items in the various supply systems.
6. Promote more uniformity in financial accounting systems.
7. Improve government-industry relations by requiring contractors to use only one system of item identification.

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<sup>1</sup>U.S. House of Representatives, Committee on Government Operations, Eighth Intermediate Report on the Federal Catalog Program, Part 1, 82d Cong., 2d Sess., (February 22, 1954), p. 9

## СЕВЕР

## —ИЗДАНИЕ ДЛЯ ПРОФЕССИОНАЛОВ

Советы по ее роли в развитии науки и в ее практической работе. Но поскольку не только профессия, но и сама наука включают в себя не только профессиональные, но и личностные аспекты, то в работе над научной статьей неизбежно придется учитывать и эти аспекты. Их можно разделить на профессиональные и личностные.

Профессиональные аспекты научной статьи определяются тем, что она должна быть полезной для профессионалов, то есть для тех, кто занимается тем же самым, что и автор.

Личностные аспекты научной статьи определяются тем, что она должна быть полезной для автора, то есть для тех, кто занимается тем же самым, что и автор.

## —ИЗДАНИЕ ДЛЯ ПРОФЕССИОНАЛОВ

Советы по ее роли в развитии науки и в ее практической работе

—ИЗДАНИЕ ДЛЯ ПРОФЕССИОНАЛОВ

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The founders of the Federal System recognized that cataloging, in itself, could not effect the benefits outlined above unless effective use was made of the catalog data in the military and civilian supply systems. To this end, Congress, in the Defense Cataloging and Standardization Act, assigned to the Secretary of Defense the responsibility for insuring maximum utilization of the Federal Catalog System in overall logistics management.<sup>1</sup>

#### Management Improvements

In response to this assignment, the Department of Defense has expended tremendous effort over the last ten years to point out the potential benefits of a common supply language and encourage its use wherever possible. A review of the numerous programs which have successfully utilized this catalog data indicates that the efforts of the Department of Defense have not been in vain. Utilization is so wide-spread that it is difficult to find a logistics program in existence which does not employ this data. In fact, utilization has spread so rapidly that it has crossed the perimeters of the Department of Defense and now includes most of the civilian agencies as well as all of the NATO nations.

The extent and success of catalog utilization can best be evaluated by examining some of the more significant program areas where this common supply language has been used to effect management improvements.

#### Interservice Supply Support

The Federal Catalog System has facilitated the exchange of material between supply managers in the various military systems. This type of activity is referred to as "interservicing" and several formal programs have

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<sup>1</sup>Defense Cataloging and Standardization Act, (July 1, 1952), op. cit., p. 1.



been initiated in this area.

The Interservice Supply Support Program was established by the Department of Defense in 1955 and is administered by a committee composed of the Supply Managers of the military services. Physical cross servicing, as directed by the Committee, is accomplished at depot and retail-users levels. Literally hundreds of millions of dollars worth of material has been exchanged in this manner.<sup>1</sup>

The ability to utilize a common cataloging system is a virtual necessity for complete success in this program.

Project "PLUS" is another interservicing program which depends heavily on catalog data. It is a mechanized system for matching deficiencies in one supply system against excesses in other systems. All items identified to a Federal Stock Number during screening against the master catalog file at the Defense Logistics Services Center are matched against the "PLUS" asset file to locate items in long supply. The submitting activity is then notified of those items found to be in long supply or in excess. The intended purpose of "PLUS" is to achieve the best possible balance between stock levels of Department of Defense Inventory Managers and to prevent concurrent buying and selling.<sup>2</sup>

In 1955, action was taken by the North Atlantic Treaty Organization countries to develop a single catalog system for all armed forces assigned to NATO.<sup>3</sup> The objective of this program is to provide a system whereby

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<sup>1</sup>Defense Supply Agency, An Introduction to the Federal Catalog System, (August, 1964), op. cit., pp. 19-20.

<sup>2</sup>Ibid, p. 25

<sup>3</sup>Ibid, p. 23

and the role of the firm in the economy. In this context, the role of the firm is to produce and supply goods and services to the market. The firm is also responsible for the creation of jobs and the promotion of economic development. The firm is also responsible for the protection of the environment and the promotion of social welfare.

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assets can be exchanged between participating nations during joint operations. The NATO member nations adopted the Federal Classification and Cataloging System as a basis for a NATO Item Identification System. Scheduled meetings of participating nations are held to insure that greater uniformity is attained in the application of the Federal Catalog System procedures to the codification of equipment.

#### Integrated Supply Management

One reason for the establishment of the Department of Defense in 1947 was to make possible a reduction in total defense costs by eliminating undesirable duplication in the supply activities of the military departments. Since then a number of steps have been taken to integrate common supply needs. All such steps have been predicated on the availability of the common supply language and classification system established by the Federal Catalog System.

The first of these projects was the Single Department Procurement Program which assigned certain common commodity groups to one military service for coordinated procurement of all Department of Defense requirements.

Next, the Single Managers were established. Under this concept, one service had supply management responsibility for the needs of all services in a given commodity area. Single managers were assigned for subsistence, clothing, petroleum products and medical supplies.<sup>1</sup>

In 1961 the Defense Supply Agency was established to insure continued progress in the integration of common supply activities. For its operating

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<sup>1</sup>The Federal Catalog System in the Department of Defense, (September, 1959), Sect. VI., op. cit., pp. 3-4.



arms in the field of logistics, the Defense Supply Agency established Defense Supply Centers throughout the United States. These Centers absorbed the existing Single Manager commodity areas and added others, such as electronics and construction equipment.<sup>1</sup>

It is doubtful if any of the progress made in supply integration could have been accomplished without the Federal Catalog System to provide the information as to which classes and groups of items would be most susceptible to this type of management.

#### Transportation

The military departments revised Freight Classification Guides to utilize Federal Catalog data. To the extent possible, freight descriptions assigned to identical Federal item identifications were compared and differences reconciled. In addition, uniform freight rates are disseminated by the Defense Logistics Services Center through cataloging channels to facilitate the processing thereof and reduce publication costs.<sup>2</sup>

#### Industrial Relations

Practically all items in the military supply systems are produced by civilian industry. In many instances, civilian technicians are more familiar with the characteristics of an item than are the military people. Participation of industry in the Federal Catalog System is therefore essential to its

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<sup>1</sup>Defense Supply Agency, An Introduction to the Federal Catalog System, (August, 1964), op. cit., pp. 20-22.

<sup>2</sup>Ibid., p. 22



success. Procedures have been developed whereby industry can assist the government by providing appropriate technical data or by actually performing the item identification work where necessary. Industry, in turn, benefits by having to deal with only one standardized set of regulations instead of many different ones.<sup>1</sup>

#### Item Entry Control

Unnecessarily large inventories increase operating costs, reduce the mobility of operating forces and require excessive inventory investment. For these reasons one of the principal objectives of the Department of Defense is to reduce the number of items in the supply systems. This, however, is often difficult primarily because a military inventory cannot remain static. The weapon revolution has produced new items which enter the military inventories each year, often at a faster rate than the obsolete items are phased out. So, the task is one of purging unnecessary and duplicate items while preventing some from entering the inventories.<sup>2</sup> To this end, various projects have been undertaken to eliminate, through simplification and standardization actions, those duplications which exist in the military supply systems.

The Federal Catalog System was one of the first programs to accomplish significant item reduction. Nearly a million items were eliminated from service inventories during the conversion phase of the system (1956-1958).

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<sup>1</sup>Ibid., p. 23

<sup>2</sup>Supply Management Reference Book, (June, 1958), op. cit., pp. 53-54.



This reduction was the result of the elimination of duplicate numbers on identical items, removal of obsolete items and certain preliminary standardization actions prior to converting to the Federal Stock Number.<sup>1</sup>

The Accelerated Item Reduction (AIR) Program was initiated by the Department of Defense in 1958 and consisted of three phases or steps. These were status coding of items, catalog cleanup, and inventory cleanup. This program eliminated 198,000 items and proposed elimination of 270,000 more.<sup>2</sup>

Project SHAKEDOWN, under the monitor ship of the Defense Supply Agency, was initiated in 1961 to conduct a technical review of nine Federal Supply Classes with the objective of item reduction, disclosure of commonality, identification of interchangeability and substitutability relationships, improved item identification, increased utilization of the description method of cataloging, and additional deletion of reference numbers to the Federal Catalog file. To date, this program has eliminated some 50,000 items.<sup>3</sup>

In addition to these programs, which were primarily concerned with purging duplicate and unnecessary items from the systems, several others have been initiated to then prevent reentry into the system.

The Provisioning Screening Program initiated procedures by which identifications for new items of supply are screened against items already listed in the supply system. This program provides part number screening

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<sup>1</sup>Catalog or Chaos?, (1959), op. cit., p. 6.

<sup>2</sup>U.S. Department of Defense, Defense Supply Agency, DSA Technical Data System Development Program, Project TD-8, Item Entry Control, (October 1963), p. 3.

<sup>3</sup>Ibid.



against the entire central file of reference numbers contained at the Defense Logistics Services Center in order to identify those items already in the supply system. This process takes place before the actual procurement of the item and thus can prevent the procurement of items already in long supply and/or eliminate unnecessary item identification preparation.<sup>1</sup>

Engineering Data Systems (EDS-0009) is a Department of Defense standardization effort to provide design engineers with information on the characteristics of items already in the supply systems. The objective is to encourage the engineer to utilize standard and existing items rather than to design new ones. The item characteristics contained in the Federal Catalog files are one of the principal sources of information used in this experimental system.<sup>2</sup>

The foregoing explanation of the major endeavors undertaken within the Department of Defense to control the number of items in the supply systems indicates the degree of effort being expended in this area. The problem of item entry control is becoming more important each day and the Federal Catalog System can expect to play an ever increasing role in its solution.

#### Effectiveness of Operations

The programs described heretofore can all be considered as catalog-related in that they depend heavily on the identification information generated by the Federal Catalog System for day-to-day operations. In fact, it is questionable if any could have been initiated without the existence of a

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<sup>1</sup>Defense Supply Agency, An Introduction to the Federal Catalog System, (August 1964), op. cit., p. 24.

<sup>2</sup>U.S. Department of Defense, Office of the Assistant Secretary of Defense (Supply and Logistics), EDS-0009, (October 1963), p. 2.



common supply language such as that provided by the Federal Catalog System.

In general, these programs have attained a large degree of success which is reflected by the fact that they have consistently generated savings in supply management far in excess of any operational costs incurred; and have continued to refine operating procedures to a point where they are now in an advanced state of technology.

In view of the success of these programs it would appear logical to conclude that the Federal Catalog System has also achieved a good deal of success in its own operations. The validity of this statement is, of course, based on the premise that the very nature of Federal Cataloging requires that it be judged, vicariously, through the programs that it serves. The catalog system is completely passive and can effect no supply management improvements in its own name. It can only provide the tools for improvement to system managers for their use. Therefore, the success of the catalog system must be measured in direct relation to the success of the catalog-related operating program.

There is considerable truth in this premise and in the aggregate, it provides a fairly accurate measure of catalog effectiveness. However, one important point has been omitted. Each supply system manager has a number of tools, in addition to cataloging data, available to him. For instance, management techniques which employ financial information, supply demand data, and mobilization plans are used extensively in the control and coordination of supply operations. The proper mix of these tools and the effectiveness of the procedures developed for their use will have considerable bearing on the success of the program. Therefore, in order to fairly evaluate the achievements of the Federal Catalog System, it is first necessary



to determine the effectiveness of the catalog tools used in these programs.

In this regard, considerable effort has been expended in the last several years by the General Accounting Office and the Department of Defense to evaluate the effectiveness of the cataloging tools and procedures. The results of these reviews indicate several important areas of deficiencies in the Catalog System.

#### Program Deficiencies

In May, 1963, the General Accounting Office reported to Congress on the results of a review conducted by that office on the operations of the Federal Catalog System. In that report, the General Accounting Office charged that the Federal Catalog System was deficient in that:<sup>1</sup> (1) the continued assignment of two or more Federal Stock Numbers (FSNs) to the same items of supply has adversely affected supply operations; (2) the lack of a system for identifying interchangeable or substitutable items caused purchase of unnecessary items; and (3) the retention of inactive Federal Stock Numbers and the cataloging of items not recurrently used created unnecessary administrative costs.

Of the three charges listed, the first appears to be the most important to the Cataloging System and should be reviewed in some detail. The second charge is of more concern to the Standardization Program since that program is responsible for developing substitutability and exchangability information.<sup>2</sup> Therefore, it will not be discussed further here. The third

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<sup>1</sup>GAO Report on the Federal Catalog System, (May 31, 1963), op. cit., p. 8.

<sup>2</sup>Supply Management Reference Book, (June, 1958), op. cit., pp. 56-57.



charge was acceptable as valid and as a result applicable retention criteria and regulations governing the scope of items to be cataloged were modified to eliminate this deficiency. This then will not be discussed further either.

In regard to the assignment of multiple stock numbers to the same item of supply, the General Accounting Office stated:<sup>1</sup>

"The reliability of the Federal Catalog System as an effective tool for accomplishing interservice supply support has been seriously reduced because like items often bear different FSNs. The assignment of two or more stock numbers to identical supply items has caused these items to appear in the inventory as though they were different. This has often prevented efficient use of Department of Defense assets and caused unnecessary procurements because of the availability of material for transfer within and between services is determined mainly on the basis of FSNs, predicated on the premise that all activities use the same FSN for a particular item."

The General Accounting Office further stated that their review had disclosed that assignment of multiple Federal Stock Numbers to an item of supply was caused primarily by (1) obtaining different stock numbers on the basis of variations in the intended use of the item, (2) excessive use of the reference method of cataloging in lieu of adequately describing the item, and (3) lack of criteria for the selection of a uniform identification number as a reference designation in the cataloging process.

GAO maintained that under the "item of supply" concept current procedures permit users to obtain different stock numbers for the same item, on the basis of variations in the intended uses of the item and that these restrictive criteria are often unwarranted.

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<sup>1</sup>GAO Report on the Federal Catalog System, (May 31, 1963), op. cit., p. 9.

<sup>2</sup>GAO Report on the Federal Catalog System, (May 31, 1963), op. cit., p. 9.



It was also pointed out that the reference method of item identification was supposed to be used only when description by words was impractical. The General Accounting Office, however, maintained that since it is easier and faster for a military user to have a new item cataloged by the reference method because less detail is required, the military services, in requesting Federal Stock Number assignments, have used this method extensively. Figures 3 and 4, which show the total number of submittals by both the descriptive and reference methods over the last several years, substantiates the General Accounting Office statement. The prevalent use of the reference method has resulted in the assignment of different Federal Stock Numbers to identical items. This is because, in screening new items against existing ones during the cataloging process, it is frequently impossible under the reference method, to determine whether the same items have already been cataloged. On the other hand, items introduced to the system under the descriptive method, can be compared by physical and performance characteristics with descriptions of existing items and assignment of multiple stock numbers to identical items reduced. Figures 5 and 6, which show the results of centralized screening of reference and descriptive method submissions over the last several years, indicates that descriptive screening is approximately 17 per cent more effective than reference screening in locating duplication.

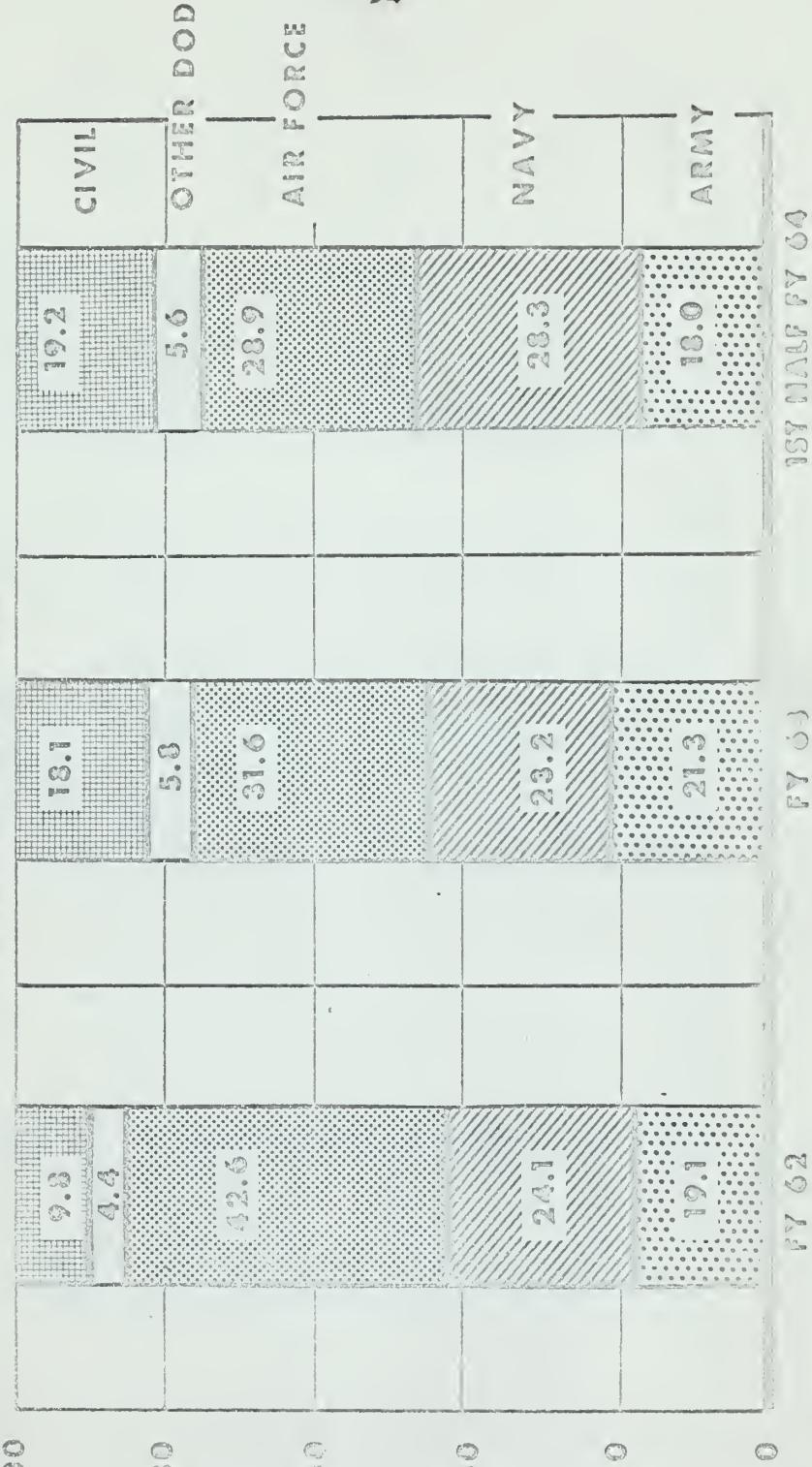
In addition, the General Accounting Office said that under the reference method of cataloging, existing procedures permit the use of a variety of reference numbers to establish the identification of a supply item. Since different reference numbers will not match in the catalog screening process duplicate stock number assignments are prevalent.



# FEDERAL CATALOGING PROGRAM

## ORIGINAL ITEM IDENTIFICATION SUBMITTERS REFERENCE METHOD

PERCENT



	1962	1963	1964
CIVIL	36,034	53,016	20,461
OTHER DOD	36,238	17,019	5,977
AIR FORCE	155,588	92,826	30,883
NAVY	88,699	68,196	30,252
ARMY	70,326	62,702	19,167
TOTAL	367,835	293,759	103,710

Fig. 3.—Reference Method Identification Submitters

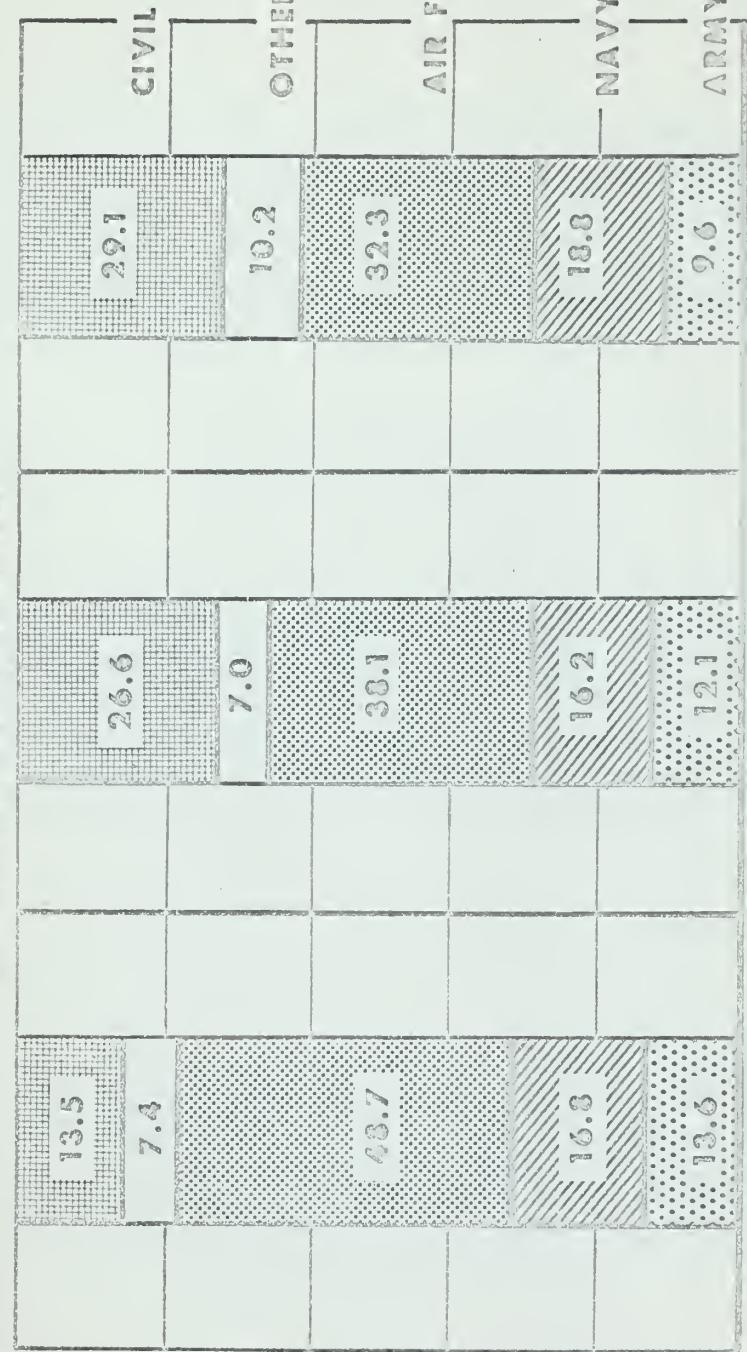


# FEDERAL CATALOGGING PROGRAM

## ORIGINAL ITEM IDENTIFICATION SUBMITTERS

### DESCRIPTIVE METHOD

PERCENT



**CIVIL**  
**OTHER DOD**  
**AIR FORCE**  
**NAVY**  
**ARMY**  
**TOTAL**

33,799  
 21,337  
 139,376  
 48,136  
 39,204  
 287,352

67,953  
 17,843  
 97,379  
 41,301  
 30,863  
 255,344

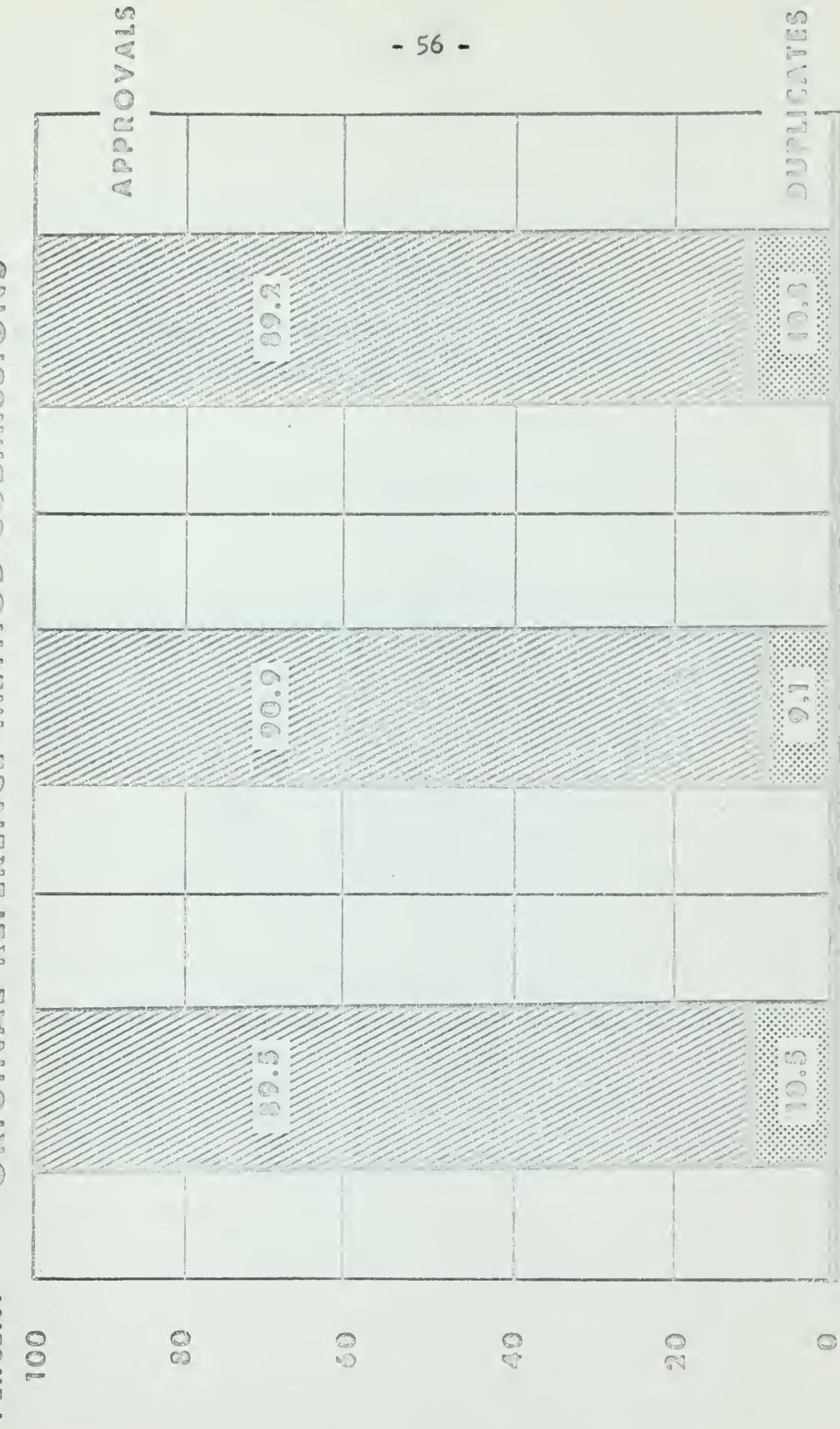
27,483  
 9,628  
 30,531  
 17,746  
 9,013  
 94,106

Fig. 4.—Descriptive Method Identification Submitters



# FEDERAL CATALOGING PROGRAM

## RESULTS OF CENTRALIZED SCREENING ORIGINAL REFERENCE METHOD SUBMISSIONS



FY 64  
FY 63  
FY 62  
1ST HALF

Fig. 5.--Screening Results of Reference Method Identifications



# FEDERAL CATALOGGING PROGRAM

## RESULTS OF CENTRALIZED SCREENING ORIGINAL DESCRIPTIVE METHOD SUBMISSIONS

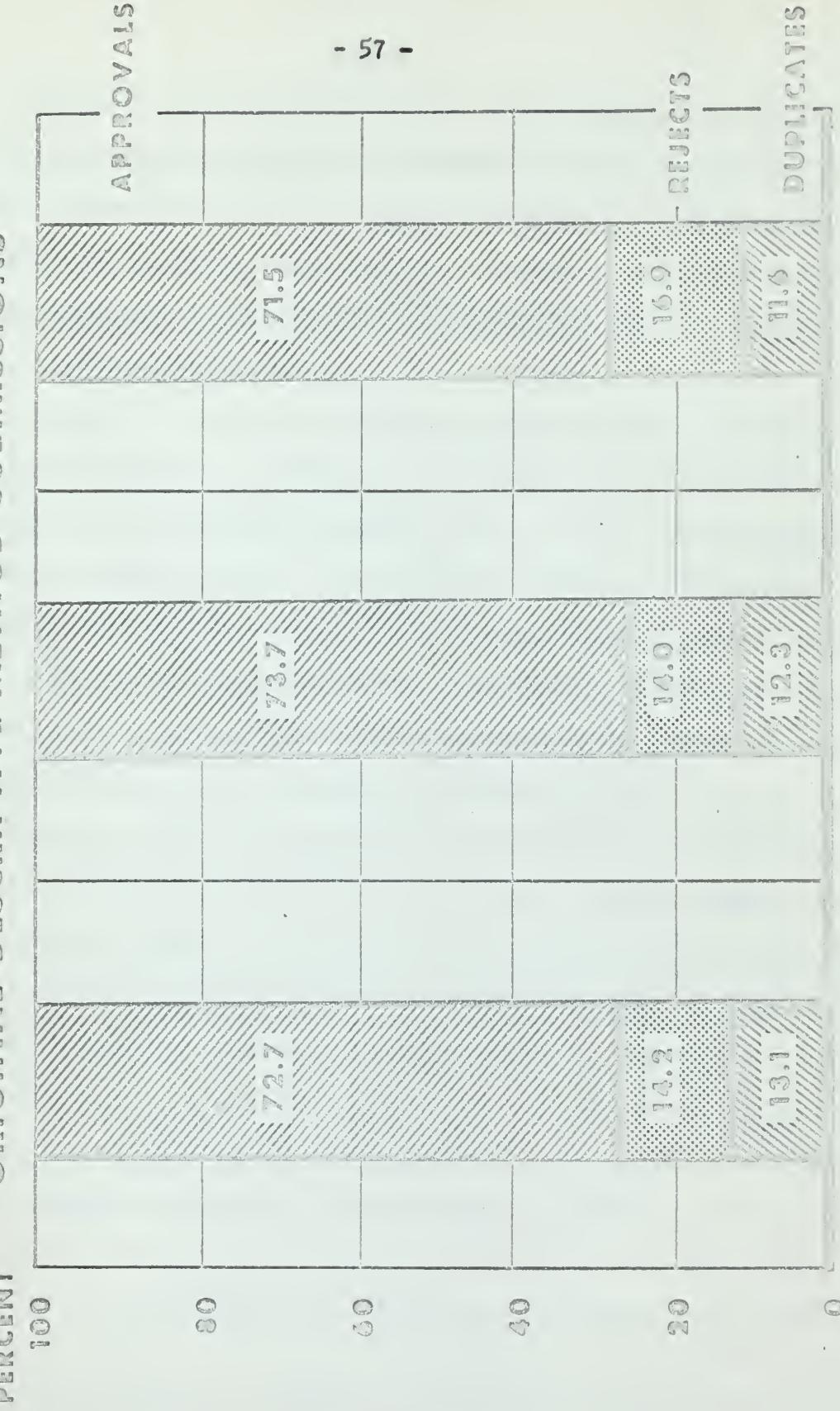


Fig. 6.--Screening Results of Descriptive Method Identifications



To correct the deficiencies listed in the report, the General Accounting Office recommended that the Department of Defense tighten up its regulations concerning the "item of supply" concept, reference method identifications, and reference number criteria. It also recommended that the Defense Logistics Services Center be given broader policing power over service cataloging activities.

In reply to the General Accounting Office's report, the Assistant Secretary of Defense for Installations and Logistics, advised that the military departments basically concurred in their findings and would take required corrective action. A joint Military/Defense Supply Agency Ad hoc Committee was established to review the Federal Catalog System and submit recommendations for its improvement. After exhaustive research and review, the committee, which had been named the Federal Catalog System Review Group, presented its report to the services in February, 1963.<sup>1</sup>

In brief, the Review Group found that the system was fundamentally sound and had been indispensable as a basis for improving integrated supply management operations. It agreed with the General Accounting Office that one of the major deficiencies was the frequent occasions of duplicate stock number assignments. It did not, however, agree that the cause of this problem was the lack of sufficient restrictive regulations and policing procedures. The Review Group saw the problem in a much broader perspective.

The rapid advancement of modern weapons systems has placed serious pressures on the services for prompt identifications of supply items. These pressures have been aggravated by difficulties in acquiring technical data

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<sup>1</sup>U.S. Department of Defense. The Defense Logistics Services Center, Catalog Review Analysis and Modernization (September, 1963) pp. 1-10.



and test information from manufacturers and by continual engineering changes during production. The Federal Catalog System, which had not been modernized since 1958, was finding it more and more difficult to respond in a time-frame acceptable to the services. This situation, coupled with decreases in the staffing levels at the cataloging offices, forced compromise on rules and concepts thus creating the condition reported by the General Accounting Office.<sup>1</sup>

The solution, as seen by the Review Group, was to completely modernize and tighten up the System commensurate with the demands of modern technology. To this end they presented a proposed improvement plan for cataloging operations.

The size and comprehensiveness of the plan was impressive. It included 31 recommendations which ranged all the way from minor changes in existing operating procedures to proposals which would require revisions of some 12,000 description patterns and would result in the redescription of about 3 million items of supply.<sup>2</sup>

The total cost of the program and its ramifications has never been fully priced-out but it has been estimated that it could run as high as 200 million dollars.<sup>3</sup> This then, would be the cost of correcting the deficiencies cited by the General Accounting Office. This projected high cost has

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<sup>1</sup>Ibid. p. 1-15

<sup>2</sup>Ibid

<sup>3</sup>U.S. Department of the Navy, Bureau of Supplies and Accounts, Report on Staff Study of Catalog Related DOD/DSA Improvement Programs, (May 28, 1964) pp. 1-5.



resulted in much resistance from the military services and implementation has not yet been accomplished.<sup>1</sup>

It is questionable whether a program of this magnitude can be justified on the basis of its ability to reduce duplicate stock numbers by a few percentile. In fact, the deficiency noted by the General Accounting Office may well be a cost of doing business, undesirable, but unavoidable.

This statement is not meant to imply that the recommendations of the Catalog Review Group were without merit. On the contrary, when and if they are accomplished, the ability of the Federal Catalog System to respond to the demands of an increasingly technical environment, will be greatly enhanced. Therefore, the proper perspective for these recommendations is one which emphasizes future benefits rather than correction of past deficiencies.

In light of these findings and recommendations, the original evaluation of the Federal Cataloging System, which was based solely on its successful application in supply management programs, must be somewhat revised. It would now seem more accurate to say that the System has been highly successful in the past, is presently adequately providing essential supply support but must be modernized if it is to continue as an effective operating arm of management.

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<sup>1</sup>Ibid.



### Summary

In this chapter the benefits envisioned by the founders of the Federal Catalog System were compared with actual accomplishments realized by the System in twelve years of operation.

It was found that the Federal Catalog System is used extensively in supply management operations and has become an integral part of the supply system of the Department of Defense. It has been particularly effective in facilitating integrated supply management where a high degree of cooperation and coordination among the military services is necessary.

The effectiveness of the System, however, has been criticized by the General Accounting Office and various elements within the Department of Defense itself, on the grounds that System procedures fail to insure identification of duplicate items of supply.

The cost of correcting this deficiency appears to be quite large in relation to the seriousness of the problem and therefore there is some question as to whether or not a corrective program should be undertaken at this time.

The pressures of an increasingly technical and mechanized supply system indicate that considerable modernization of the Federal Catalog System will be necessary in the near future if it is to continue to provide essential services. To this end, several improvement programs have been developed and are now in various stages of implementation.



## CHAPTER IV

### SUMMING UP

The review and analysis of the Federal Catalog System is, at this point, essentially complete. Before developing any final conclusions however, as to the System's value and effectiveness, it would seem worthwhile to briefly review the information that has been presented.

#### System In Retrospect

In 1952, the Secretary of Defense was directed by Congress to develop a single cataloging system within the Department of Defense. This system was to provide procedures for naming, describing, classifying, and numbering each item that was repetitively used, purchased, stocked or distributed within the Department of Defense, so that only one distinctive combination of numerals would identify the same item no matter where it was used. From that day on, the Federal Catalog System was, by law, the uniform language of supply for the Federal Government.<sup>1</sup>

Prior to the establishment of this System, each military service used its own system for classifying or identifying items. During World War, II, this situation created chaos in the supply pipelines of the military and cost the country millions of dollars. The Federal Catalog System was thus created to insure that this situation would not be repeated.

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<sup>1</sup>Defense Cataloging and Standardization Act. (July 1, 1952), op. cit., p. 1.



The Federal Catalog System, as designed by the Secretary of Defense, operates on the premise of decentralized cataloging by military activities and civilian agencies in the field. Central control is exercised by the Department of Defense in coordination with the General Services Administration.

Within the Department of Defense, the Defense Supply Agency is responsible for cataloging policy guidance, while operational control is the province of the Defense Logistics Services Center. Operational control consists of the central processing of item identifications submitted by the services, the assigning of Federal Stock Numbers to supply items, and the maintaining of complete master files on all item identification data.

Cataloging operations in the Federal Government, include the selection of item names, the preparation of item identifications, the establishment of supply classification and the assignment of item identification numbers.

Item identifications can be developed in two ways; by the descriptive method or by the reference method. The descriptive method uses words to describe the characteristics of the item, while the reference method cites manufacturers parts numbers, drawing numbers, etc.. The descriptive method provides a better basis for screening duplications and is therefore the more desirable one. Regulations allow the use of the reference method only when it is impractical to describe the item in words.

The identity of each item in the Catalog System is established through the assignment of a distinctive 11-digit Federal Stock Number. The first two digits of the stock number indicate the specific supply group with which the item is associated. The next two digits separate items into less general categories which are known as Federal Supply Classes. The remaining



seven digits are serial numbers which signify the particular identity of the item. The system is so constructed that no two serial numbers are ever the same.

Transmission of catalog data among service cataloging activities and the Defense Logistics Services Center is accomplished through a system of EAM punched cards and leased telephone lines. The catalog information furnished by the Defense Logistics Center is in the form of EAM cards since that organization publishes no book type catalogs. Within certain broad limitations, the design and publication of catalogs, stock lists, etc., is the prerogative of the individual supply system managers. Under this method, the catalogs used by various consumers can be adapted to meet individual needs.

The Federal Catalog System provides both military advantages and economic benefits of great magnitude. For this reason there has been general acceptance of the data provided by the System and its use is so wide-spread that it is difficult to locate a functional area where it cannot be found. Of particular significance, is its utilization in management improvement areas such as, Interservice Supply Support, Standardization, Integrated Supply Management, Item Entry Control, etc..

Critics of the System point out that it is not as effective as it might be as regards identifying duplications of items and also that it has lagged behind other programs in its use of refined Electronic Data Processing techniques. As a result of this, several comprehensive improvement plans have been developed to assure its continued prominence in supply operations.



### Conclusions

The Federal Catalog is essentially an information system that provides data concerning the identity of items listed in the inventories of the various supply systems. Like all data systems it is a tool of management and, like all tools, it must be used properly in order to be effective.

The Federal Catalog System supplies the tools necessary to facilitate the work of supply management and provides it with benefits of considerable magnitude. This fact is evident in the successful application of Catalog data to the functional areas of inventory management, standardization, interservicing, and the like.

The revolution of Electronic Data Processing has overtaken the Federal Catalog's punched-card/wire-transmission system. Since modern supply managers, with their advanced computers, want information in micro seconds rather than in hours, the Catalog System must be imbued with modern procedures which will keep it abreast of this advancing technology.

The required modernization program will be expensive but the benefits which will accrue to the users of the Federal Catalog System, in terms of more accurate and timely data, should far outweigh the costs incurred.

Each military service will, however, be inclined to resist this program unless the significant costs involved are fully funded. To avoid this resistance all implementation schedules must be carefully coordinated with the services to insure adequate recognition of the time frame necessary for proper budgeting and programming.

The Federal Catalog System was the first management-improvement program undertaken in the Department of Defense and with continued good management, history may show that it was also the most successful one ever undertaken.



## Appendix A

### **Federal Cataloging Publications**

The following publications are necessary to establish and maintain the Federal Catalog System. They are available by subscription from the Superintendent of Documents, Government Printing Office, Washington, D. C.

#### Federal Manual for Supply Cataloging.

Rules for the uniform identification and classification of items of supply and detailed operating instructions for the preparation and submittal of uniform catalog data are contained in the Federal Manual for Supply Cataloging. This is the basic operating manual for the Federal Catalog System consisting of the following:

#### Chapter 2, Item Identification (Cataloging Manual M 1-2).

Basic policies, principles, and methods for identifying items in the Federal Catalog System, with rules governing preparation of word descriptions of items.

#### Chapter 3, Supply Classification (Cataloging Manual M 1-3).

Basic policies, principles and rules for the classification system and for classifying items identified in the Federal Catalog System.

#### Chapter 4, Operating Procedures (Cataloging Manual M 1-4).

Operating procedures for the submittal of all types of identification data in the Federal Catalog System.

#### Chapter 6, Operating Forms (Cataloging Manual M 1-6).

Instructions and forms for the preparation of all types of identification data for submittal in the Federal Catalog System.

#### Chapter 7, Format and Content (Cataloging Manual M 1-7).

Establishing objectives, principles, and responsibilities related to the publication of the Department of Defense (DoD) Section of the Federal Supply Catalog. Provides instructions regarding content, numbering, and the physical arrangement of the catalog.



Federal Item Identification Guides for Supply Cataloging Handbooks.

The item names, description patterns and reference drawings approved for use by government activities in preparing item identifications for inclusion in the Federal Catalog System are published in the Federal Item Identification Guides for Supply Cataloging.

Part I, Alphabetic and Numeric Indexes (Cataloging Handbook H 6-1).

Section A, an alphabetic index of names and definitions applicable to items identified in the Federal Catalog System.

Section B, a numeric index of description patterns, with each pattern referenced to applicable item names, reference drawings and item name codes.

Section C, a list of abbreviations and symbols approved for use in preparing descriptive type item identifications for inclusion in the Federal Catalog System.

Part II, Description Patterns (Cataloging Handbook H 6-2).

Description patterns with applicable indexes published in ten sections designated as Sections A through J. Section A includes a cross-reference index of reference drawing groups to description patterns.

Part III, Reference Drawing Groups (Cataloging Handbook H 6-3).

Reference drawing groups with applicable indexes published in ten sections designated as Sections A through J. These sections coincide with the Description Pattern Sections in Cataloging Handbook H 6-2.

Federal Supply Classification Handbooks.

The Federal Supply Classification (FSC) and its indexes have been developed and adapted by the Department of Defense for use in classifying items of supply identified in the Federal Catalog System consisting of the following:

Part 1, Groups and Classes (Cataloging Handbook H 2-1).

The structure of the FSC showing the groups and classes in the arrangement of the four-digit code numbering system.

Part 2, Numeric Index of Classes (Cataloging Handbook H 2-2).

A listing of names of items and commodities, arranged alphabetically within FSC classes.



Part 3, Alphabetic Index (Cataloging Handbook H 2-3).

An alphabetic index of all names of items included in Part 2 of the FSC, with each name referenced to the applicable FSC class code number.

Federal Supply Code for Manufacturers Handbooks.

This is the nonsignificant 5-digit code which is assigned to manufacturers who provide items used by the military departments. This code is used in supply management and other functions within the Department of Defense where a numeric code for the names of manufacturers is required. These codes are published in the following Handbooks:

Name to Code (Cataloging Handbook H 4-1) (United States & Canada).

An alphabetic listing of the names of manufacturers, with each name referenced to the applicable 5-digit code.

Code to Name (Cataloging Handbook H 4-2) (United States & Canada).

A numerical listing of the nonsignificant 5-digit code, with each code referenced to the manufacturer to whom it has been assigned.

Federal Supply Code for Manufacturers (Cataloging Handbook H 4-3)  
(excluding the United States & Canada).

Includes only codes assigned to manufacturers outside of the United States and Canada, consisting of three sections:

Section A - An alphabetic listing of the names of manufacturers, with each name referenced to the alphabetic nonsignificant 5-digit numeric and/or 5-symbol (NATO) codes.

Section B - A numeric listing of the nonsignificant 5-digit codes, with each code referenced to the manufacturer to whom it has been assigned, and to its related 5-symbol (NATO) code, if any.

Section C - An alphanumeric listing of the nonsignificant 5-symbol (NATO) codes, with each code referenced to the manufacturer to whom it has been assigned, and to its related 5-digit code, if any.



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